

Hardware Support For Partitioning A Multiprocessor System To Allow Distinct Operating Systems

Abstract of the Disclosure

A system and method of partitioning a multiprocessor or multinode computer system containing two or more partitions each of which contain at least three nodes or processors and a central hardware device communicating with a requestor node or processor, a target node or processor and at least one additional node or processor in the partition. The multiprocessor system architecture allows for partitioning resources to define separate subsystems capable of running different operating systems simultaneously. The method operates with the central device, a tag and address crossbar system, which transmits requests for data from the requestor node to the target node, but not to any of the additional nodes or processors which are not defined as part of a given partition. The method provides steps of assignment of definitions to physical ports with the central device corresponding with desired partitioning of resources within the system. Data processed within the system is assigned tags which themselves are related to the defined system resources allocated to one or more desired partitions within the system.